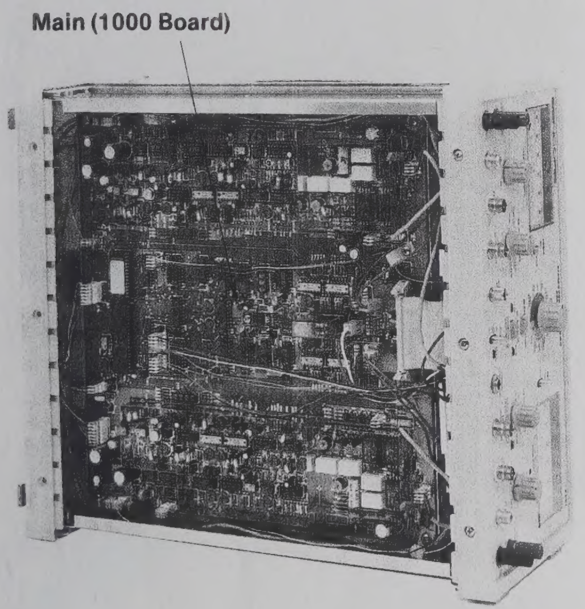
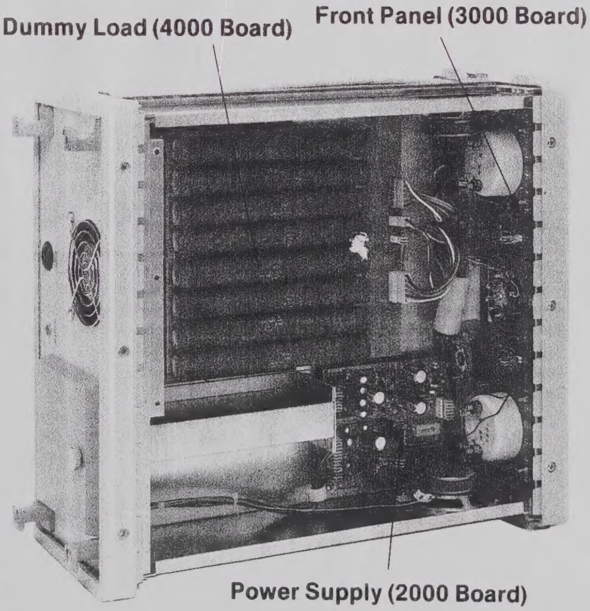
PA81
Audio Power Analyzer

Schematic & Parts List


Main (1000 Board)


Dummy Load (4000 Board)
Front Panel (3000 Board)
Power Supply (2000 Board)

SHEET 1

Index

	Board No.	See Sheet #
This sheet includes parts list & block diagram.	1000	2
	2000	2
	3000	3

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Schematic Reference	Part No.	Description
Main(1000 Board)		
C1,2,4,6,8,12-15,31,32,36-38,44-46,48,50,52,53,62,65,66,68-70,86,89,95-99,105,108,109,118-122,136,143-146,160,161,164,165,172	24G482	Cap, Mylar, .1uF, 50V, 5%
C3	24G491	Cap, Lytic, 4.7uF, 25V, +100/-20%
C5,25,55-57,59,81,110-112,115,124,130,137,138,140	24G207	Cap, Disc, .01uF, 100V, +80/-20%
C9,10	24G77	Cap, Disc, 20pF, 500V, 5%, NPO
C11,49,106	24G384	Cap, Lytic, 2.2uF, 50V, 20%
C16,72	24G146	Cap, Mylar, .47uF, 200V, 10%
C18,74	24G153	Cap, Disc, 5pF, 500V, 5%, NPO
C19,21,75,77	24G387	Cap, Trim, 2.5-18pF
C20,76,134,168,169,135	24G82	Cap, Disc, 100pF, 500V, 20%, NPO
C22,78,170,171	24G86	Cap, Disc, 10pF, 500V, 10%, NPO
C24,80	24G350	Cap, Poly, 680pF, 33V, 5%
C26,27,82,83	24G178	Cap, Poly, 200pF, 125V, 5%, N150
C28,84	24G113	Cap, Disc, 270pF, 500V, 10%
C29,30,47,85,87,103	24G506	Cap, Lytic, 10uF, 16V, N.P.
C33,41,92,100	24G105	Cap, Poly, 390pF, 125V, 5%
C34,42,94,102	24G378	Cap, Poly, 56 pF, 160V, 2.5%
C35,39,40,43,101	24G188	Cap, Poly, .001uF, 33V, 5%
C51,67	25G450	Cap, Lytic, 1uF, 50V, 20%
C54,58,139,113,114,173,174	24G382	Cap, Lytic, 10uF, 16V, 20%
C61,117	24G195	Cap, Mylar, .022uF, 250V, 10%
C88,104,125,131,153,154	24G437	Cap, Lytic, 470uF, 25V, +100/-20%
C90,91,93	24G18	Cap, Poly, .001uF, 33V, 5%
C107,178	24G450	Cap, Lytic, 1uF, 50V, 20%
C126,132	24G59	Cap, Disc, .05uF, 75V, +80/-30%
C127,133	24G410	Cap, Lytic, 220uF, 25V, +50/-10%
C141,142	24G151	Cap, Disc, 22pF, 500V, 5%, NPO
C150,177	24G442	Cap, Lytic, 100uF, 16V, +50/-10%
C151,152	24G512	Cap, Met. Poly, .1uF, 250V, 10%
C156,158	24G248	Cap, Lytic, 330uF, 10V, 20%
C175,176	24G511	Cap, Met. Poly, .15uF, 250V, 10%
CR3-19,21-26,30-44	50C5-2:A	Diode, Sil, 1N4148
CR20,46	50C3-1	Diode, Germ, 1N34A
IC1,2,25	69G238	IC, Res Net, 8X100K
IC3,4	69G347	IC, Octal Buffer, 74HC244
IC5,7,9,10,12,14,69	69G302	IC, "D" Flip Flop, Tri-S, 74HC374
IC6,8	69G304	IC, BCD-DEC Decoder, CMOS, 74HC42
IC11,13	69G130	IC, D/A Conv, 8-Bit, .1%, DAC-0802
IC15	69G207	IC, Micro, MC80C39
IC16	69G266	IC, EPROM, 27C256/12.5 Prgmng.
IC17	69G202	IC, "D" F-Flop, Octal, 74C373
IC18	69G172	IC, Res Net, 5X10K
IC19	69G45-B	IC, Decade Counter, 4017B
IC20,21,24,36,37,40	69G134	IC, Op Amp, Quad, BiFet, TL064CN
IC22	69G35	IC, Op Amp, MC34184
IC23,39	69G46	IC, Op Amp, Quad, BiFet, TL084
IC26,42	69G65-B	IC, Switch, 1X8, 4051B
IC27,43	69G67	IC, RMS/DC Converter, AD536AJH
IC28,44	69G183	IC, Multiplexer, CA4052
IC29,45	69G136	IC, Op Amp, Single, BiFet, TL061

Schematic Reference	Part No.	Description
Main(1000 Board)		
IC30,46,61	69G123-B	IC, Switch, Quad, 4066B
IC31,47	69G230	IC, A/D Convertor, TSC500CPE
IC32,33,35,48,49,51	69G310	IC, Opto Coupler, Quad, PS2401A-4
IC34,50	69G64-B	IC, Switch, Triple, 4053B
IC38	69G335	IC, Op Amp, MC34184
IC41	69G239	IC, Op-Amp, Dual Lo Pwr, TLO62I
IC52	69G8-B	IC, "D" Flip Flop, Dual, 4013B
IC53,64	69G324	IC, Or, Quad, 74HC32,
IC54,57	69G311	IC, Opto Coupler, 6N135
IC55,58	69G63	IC, Op-Amp, Single, Bifet, TL081
IC56,59	69G146	IC, Power Amp, Lo-V, LM386
IC60	69G309	IC, A/D Converter, TLC549
IC62,63	69G315	IC, Res, SIP, 5X2.2K
IC65	69G279	IC, Timer, 555CN
IC67,68	69G99	IC, Op Amp, Single, JFET, Op-15
L1,3,5,8,10,12	41G26	Relay, Reed, 2P1T, 12V
L2,4,6,7,9,11,13,14	41G25	Relay, 2P2T, 12 V
L15	41G21	Relay, Reed, DPDT, 12V, 8A, N.C.
L16,17	46G129	Inductor, Axial, 500uH, 20%
MV1,3,5,6	33G256	Varistor, 270V
MV2,4	33G302	Surgector, 270V, 130 MA
R1,4,8,48,52,56,120, 163,167,171,237	15C26-15	Pot, 1K, 1/2W, 20%
R11,109,121,158,208, 226	14A38-1004A	Res, 10K, 1/4W, 1%
R12	14A38-2874A	Res, 28.7K, 1/4W, 1%
R7	14A38-1303A	Res, 1/3K, 1/4W, 1%
R9,121,238	14A38-2673A	Res, 2.67K, 1/4W, 1%
R19,23,133,136,250, 251	14C10-103	Res, 10K, 2W, 5%
R36,89,113,150,205, 230	15C26-23	Pot, 1M, 1/2W, 20%
R40,155	14A38-9005A	Res, 900K, 1/4W, 1%
R41,156	14A38-1115A	Res, 111K, 1/4W, 1%
R42,157	14A38-9905A	Resistor, 990K, 1/4W, 1%
R43	14A38-1014A	Res, 10.1K, 1/4W, 1%
R45,160	14A38-1006A	Res, 1M, 1/4W, 1%
R46,49,53,161,164,168	14A38-1003A	Res, 1K, 1/4W, 1%
R47,51,55,162,166,170	14A38-8663A	Res, 8.66K, 1/4W, 1%
R68,199	15C26-24	Pot, 10K, 1/2W, 20%
R69,200	14A38-1244A	Res, 12.4K, 1/4W, 1%
R70,71,201,202	14A38-1824A	Res, 18.2K, 1/4W, 1%
R72,85,195,197	14A38-6734A	Res, 67.3K, 1/4W, 1%
R73,83,184,193	14A38-4993A	Res, 4.99K, 1/4W, 1%
R74,185	14A38-5832A	Res, 583, 1/4W, 1%
R76,78,187,189	15C26-19	Pot, 50K, 1/2W, 20%
R77,186	14A38-1005A	Res, 100K, 1/4W, 1%
R80,81,82,190,191,192	14A38-3574A	Res, 35.7K, 1/4W, 1%
R84,194,198,269	14A38-1103A	Res, 1.1K, 1/4W, 1%
R86,203	15C26-20	Pot, 5K, 1/2W, 20%
R87,204	14A38-2704A	Res, 27K, 1/4W, 1%
R88,207	14A38-2004A	Res, 20K, 1/4W, 1%
R100,101	14A38-1507A	Res, 15M, 1/4W, 1%
R102,219	14A38-1506A	Res, 1.5M, 1/4W, 1%
R103,104,112,220,221, 227	14A38-1504A	Res, 15K, 1/4W, 1%
R115,232	15C26-14	Pot, 100K, 1/2W, 20%
R117,234	14A38-3165A	Res, 316K, 1/4W, 1%
R119,236	14A38-9092A	Res, 909, 1/4W, 1%
R217,218	14A38^{5}1507A	Res, 15M, 1/4W, 1%

R287,291	14A38-2404A	Res, 24K, 1/4W, 1%
RT1,3	33G299	Therm, PTC, 5K, 500V
RT2,4	33G301	Therm, PTC, 4.6 Ohm, 60V
RT5,6	33G294	Therm, PTC, 860 Ohms, 60MA, 150V
TR1	19G70	Trans, N-Chan, 2N7000
TR2-12,15,16,	19A33-1	Trans, NPN, 2N3904
TR13,14	19G70	Trans, N-Chan, 2N7000
X1	47A50	Crystal, 11 MHz, HC-181U

Power Supply(2000 Board)

C1	24G424	Cap, Lytic, 2200uF, 25V, +30/-10%
C2,4,18,22,24,26,29, 30,32-35	24G482	Cap, Mylar, .1uF, 50V, 5%
C3,6,8,12,13	24G382	Cap, Lytic, 1OuF, 16V, 20%
C5,16,17,21	24G437	Cap, lytic, 470uF, 25V, +100/-20%
C7,9,11	24G207	Cap, Disc, .01uF, 100V, +80/-20%
C10,25,27,28,31	24G442	Cap, Lytic, 100uF, 16V, +50/-10%
C14,15	24G178	Cap, Poly, 200pF, 125V, 5%, N150
CR1,2	16G10	Diode, Sil, 1N4004
CR3	16G14	Diode, Pwr Comp, 1N5401
CR4	16G24	Diode, Schottky, 1N5822
CR5-14	50C5-2:A	Diode, Sil, 1N4148
IC1	69G212	IC, Adj Reg, 1.5A, LM317
IC2	69G306	IC, +/- Voltage Converter, 7661
IC3,6,8	69G116	IC, -5V Reg, 100MA, 79L05
IC4	69G70	IC, +5V Reg, 500MA, UA78M05UG
IC5	69G191	IC, Op-Amp, Single, Bifet, TL061
IC7,9	69G29	IC, +5V Reg, 100 MA, 78L05
R1	14A38-2402A	Res, 240, 1/4W, 1%
R3	14A38-2403A	Res, 2.4K, 1/4W, 1%
R6	14B49-18	Res, WW, 5 Ohm, 5W, 10%
R16	15C26-23	Pot, 1M, 1/2W, 20%
R2	15C26-3	Pot, 500, 1/2W, 20%
T1,2	28A110	Transf, Switching, CT 9V, 40MA
TR1	19G75	Trans, P-Chan, MTP8P10
TR2	19A33-1	Trans, NPN, 2N3904
TR3,5	19A29-1	Trans, NPN, MJE180
TR4,6	19A30-1	Trans, PNP, MJE170,

Front Panel(3000 Board)

CR1,12,23,24	20G27	LED, Rectangular
CR2-7,13-18,25,26	20G29	Lamp, LED, Hi-Efficiency
SW1,2	25G395	Switch, Alco, #CST-023TA
SW3,4	25G396	Switch, Alco #APA1CG-PC
SW5	25G355	SW, Toggle, 4P3T, Spring, 1Side

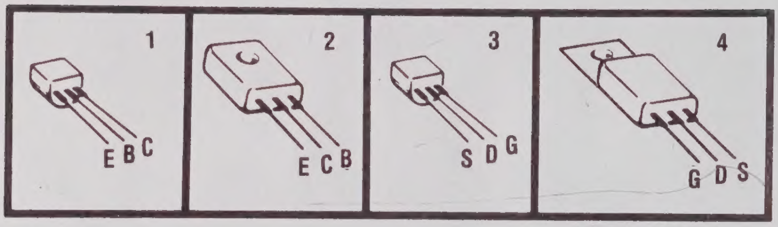
Dummy Load (4000 Board)

R1,9	14A95-3.9	Res, WW, 3.9 Ohm, 100W, 1%
R2,8	14A95-7.95	Res, WW, 7.95 Ohm, 100W, 1%
R3,7	14A95.15.9	Res, WW, 15.9 Ohm, 100W, 1%
R4,6	14A95-16	Res, WW, 16, 100W, 1%
R5	14G90	Res, Therm, 200K, 25 DEG-C

Miscellaneous Chassis Components

	15C10-4:C	Pot, Volume, 10K, +/-30%
	23C89	Meter
	25A392:A	Switch, Function, 4P11T
	25A398	Switch, Filters, 3P5T
	25A394:D	Switch, Loads, 8P4T
	26G354	Jack, 8-Pin DIN, Snap-In
	33G251	Varistor, 390V, +/-10%
	48G5	Speaker, 2 1/2'', 8 Ohm

TRANSISTOR SPECIFICATIONS AND BASING DIAGRAMS

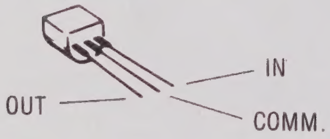

1
E B C
2
E C B
3
S D G
4
G D S

Sencore Part No.	Transistor No.	Basing	Polarity	*Beta/GM	Max I_{CBO}/I_{GSS}
19A29-1	MJE180	2	NPN	50-250	.1
19A30-1	MJE170	2	PNP	30-180	.1
19A33-1	2N3904	1	NPN	100-300	.05
19G70	2N7000	3	N-Chan	2000-8000	0.0
19G75	MTP8P10	4	P-Chan	2000-15000	0.0

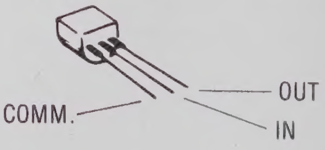
*Tested with the Sencore TF46.

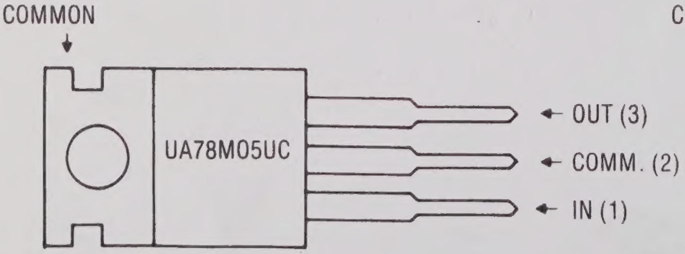
IC REGULATOR PACKAGE DIAGRAMS

78L SERIES

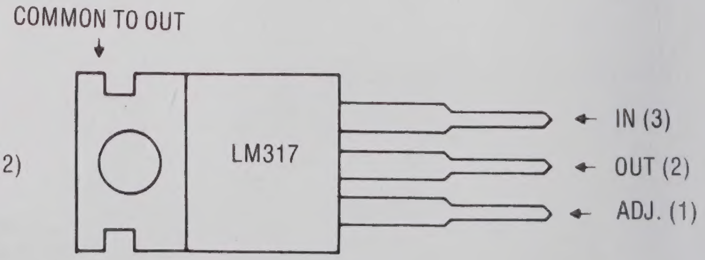


79L SERIES




COMMON
UA78M05UC
OUT (3)
COMM. (2)
IN (1)

TOP VIEW


COMMON TO OUT
LM317
IN (3)
OUT (2)
ADJ. (1)

TOP VIEW

PA81 MANUAL ADDENDUM

Change To The AC Operation Section

The following information replaces the AC Operation section on page 13 of the PA81 manual:

AC Operation

For bench operation, the PA81 is powered from any 105-130 VAC 60 Hz outlet with the supplied PA241 Power Adapter. The PA241 overrides the auto-off feature allowing continuous operation of the PA81. The PA241 also recharges the optional BY234 Lead Acid Battery Pack when properly installed in the unit.

Interruptions of AC power to the PA81 Stereo Power Amplifier Analyzer may cause the internal microprocessor to lock up and lose its place in the program. If the microprocessor locks up, the measuring functions of the PA81 are temporarily disabled until the microprocessor is reset.

To reset the PA81 to its normal operating state, simply turn the POWER switch to its OFF position for 1 second or more, then turn the POWER switch on again. The microprocessor will have reset itself, readying the PA81 for use.

To operate the PA81 from an AC line:

1. Connect the PA241 Power Adapter to an AC outlet (105-130 VAC, 60 Hz).
2. Insert the adapter plug of the power adapter into the POWER ADAPTER/EXT. DC INPUT jack on the back of the PA81.
3. Push the POWER switch to the "ON" position.

This addendum should be inserted with the PA81 manual for future reference.

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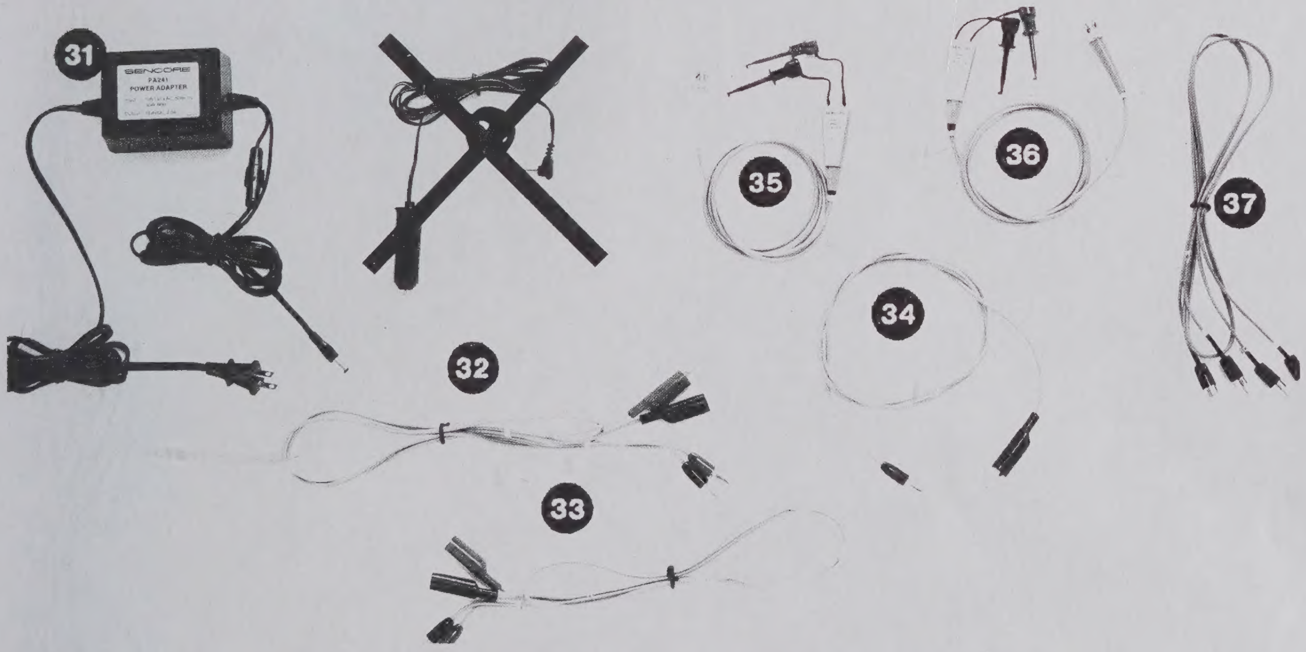
PA81 Manual Addendum

39G176 Fused DC Leads Incorrectly Added To PA81 Manual

The PA81 Stereo Power Amplifier Analyzer's Operation, Application, and Maintenance manual incorrectly included the 39G176 Fused DC Leads as a supplied accessory. The 39G176 leads are not an accessory of the PA81 and should not have been included.

The external DC input of the PA81 requires 18 volts (for the battery charging circuit) for proper operation. The 39G176 plugs into the cigarette lighter jacks in automobiles which can only supply 12 volts; this voltage is not high enough to operate the PA81 reliably.

Although the supplied PA241 Power Adapter lists its output at 13.8 VDC under a 2 amp load, the voltage rises as the load decreases. However, since the PA81 is such a low current drawing device, the voltage of the PA241 increases to 18 VDC.



Cross out the 39G176 Fused DC Leads shown in Figure 3 on page 12 of the PA81 manual.

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PAS3 Manual Addendum

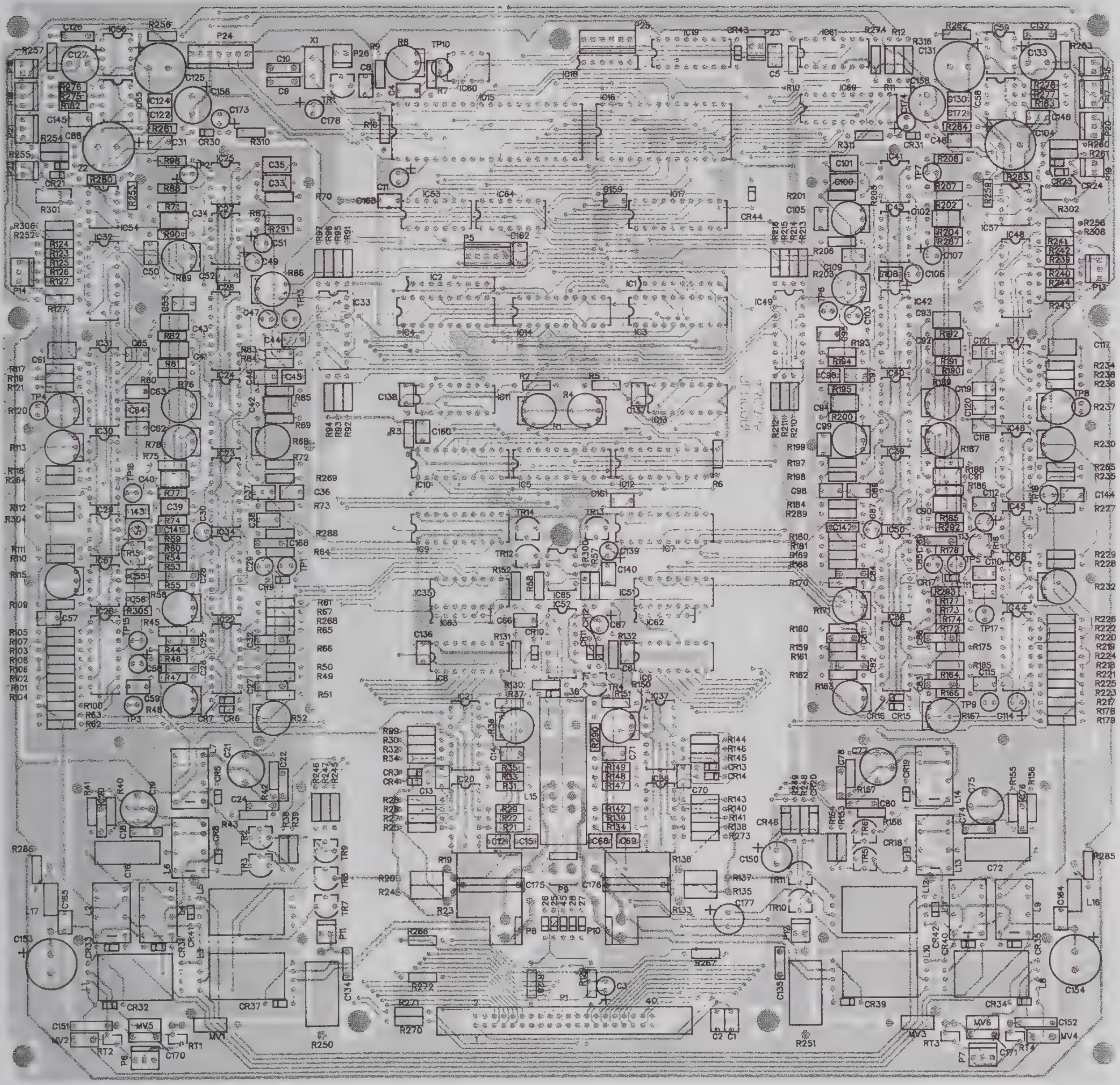
580179 Fused DC Leads Incorrectly Added To PAS3 Manual

The PAS3 Stereo Power Amplifier Assembly, Operation, Applications, and Maintenance manual incorrectly included the 580179 Fused DC Leads as a standard accessory. The 580179 leads are not an accessory of the PAS3 and should not have been included.

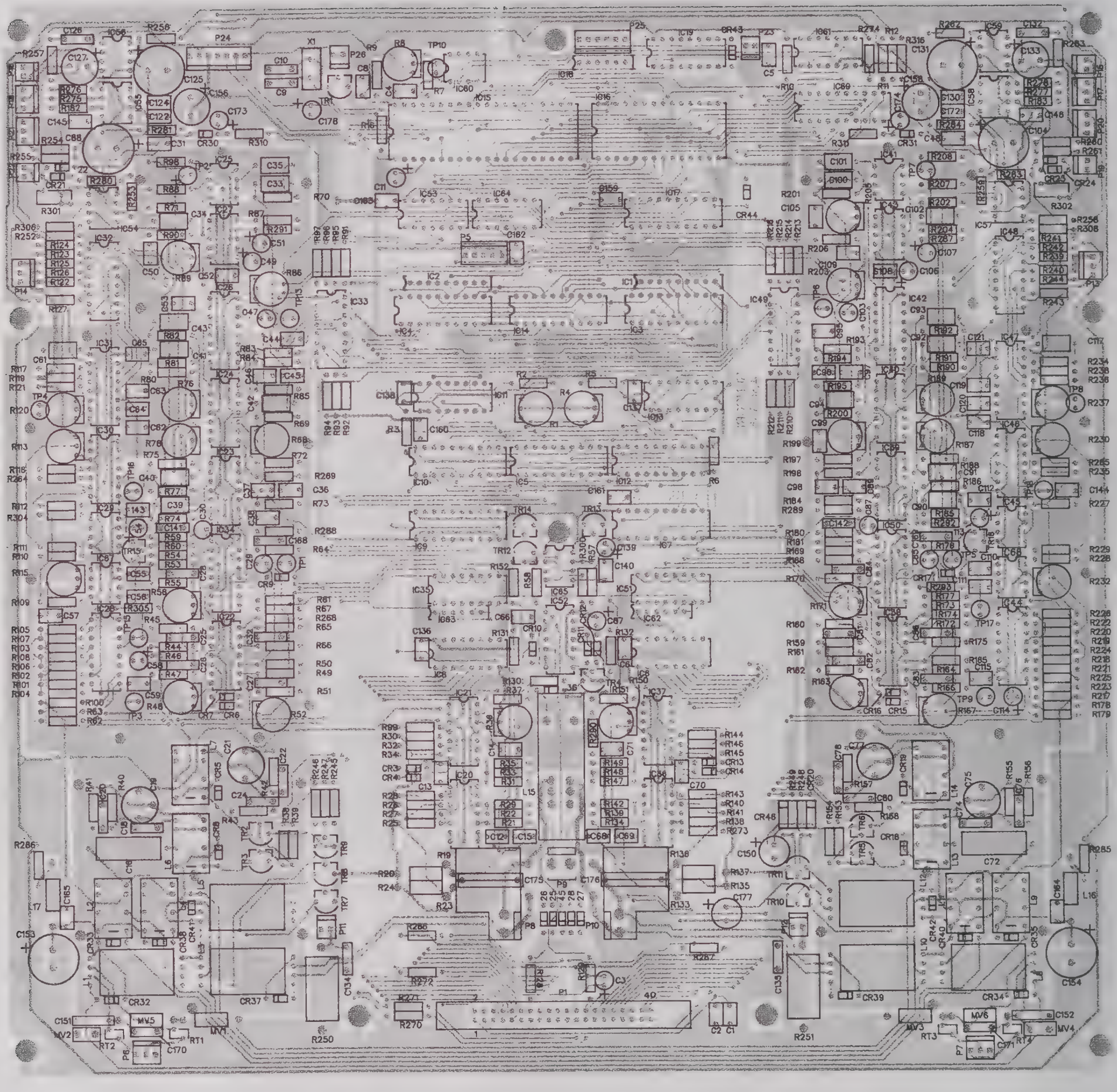
The external DC input of the PAS3 requires 15 volts. [illegible] operation. The 580179 leads are for [illegible] which can only supply 12 volts; this voltage is not high enough to operate the PAS3 properly.

Although the optional PAS3 Power Adapter has its output at 15.5 VDC under a 3 amp load, the voltage rises as the load decreases. However, since the PAS3 is such a low current drawing device, the voltage of the Power Adapter is 15.5 VDC.

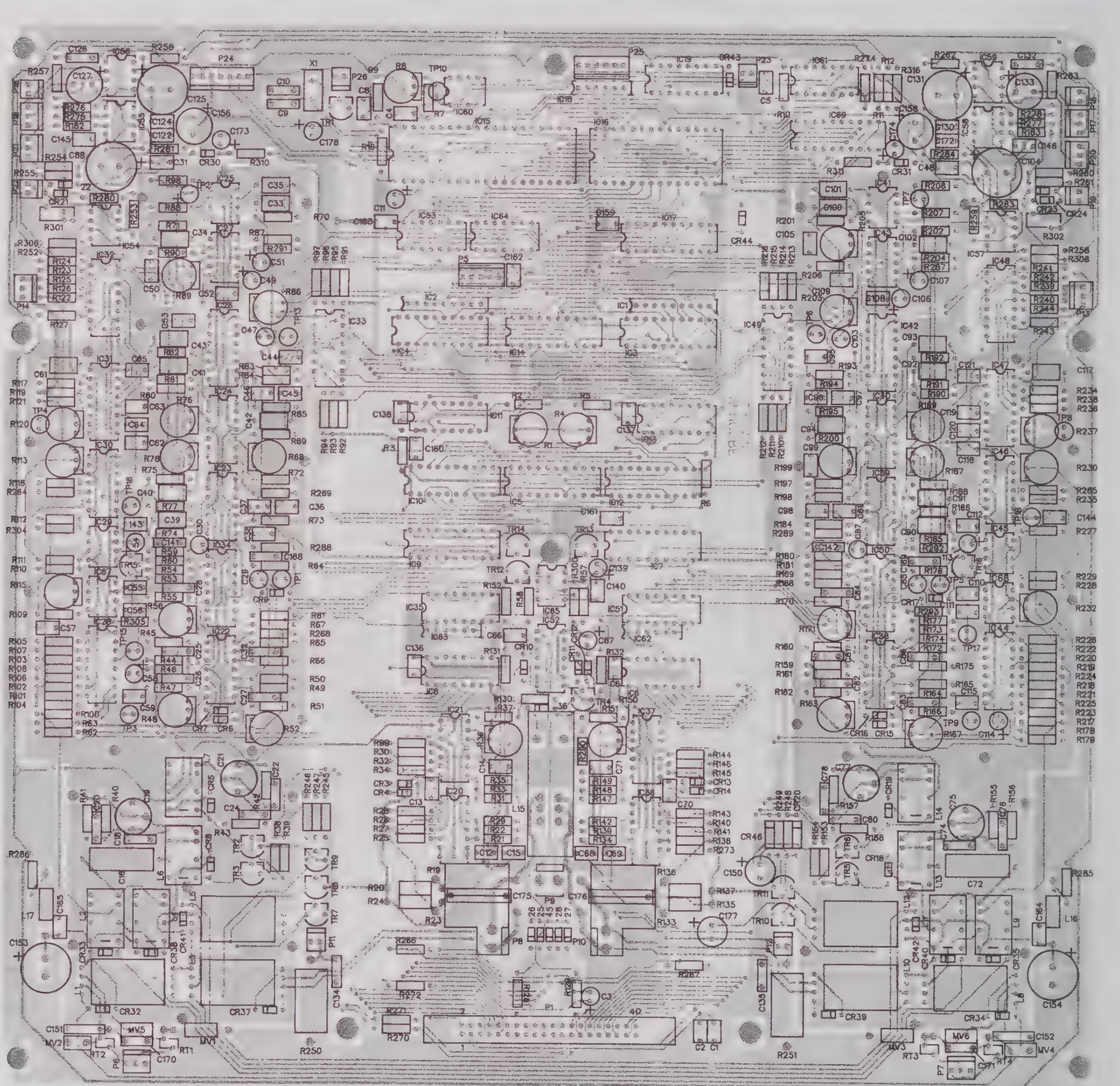
Cross out the 580179 Fused DC Leads shown in Figure 4 on page 13 of the PAS3 manual.


P24
P25
P26
P5
P8
P9
P10
P11
P12
P13
P14
P1
X1
TP10
IC18
IC19
IC60
IC61
CR43
P23

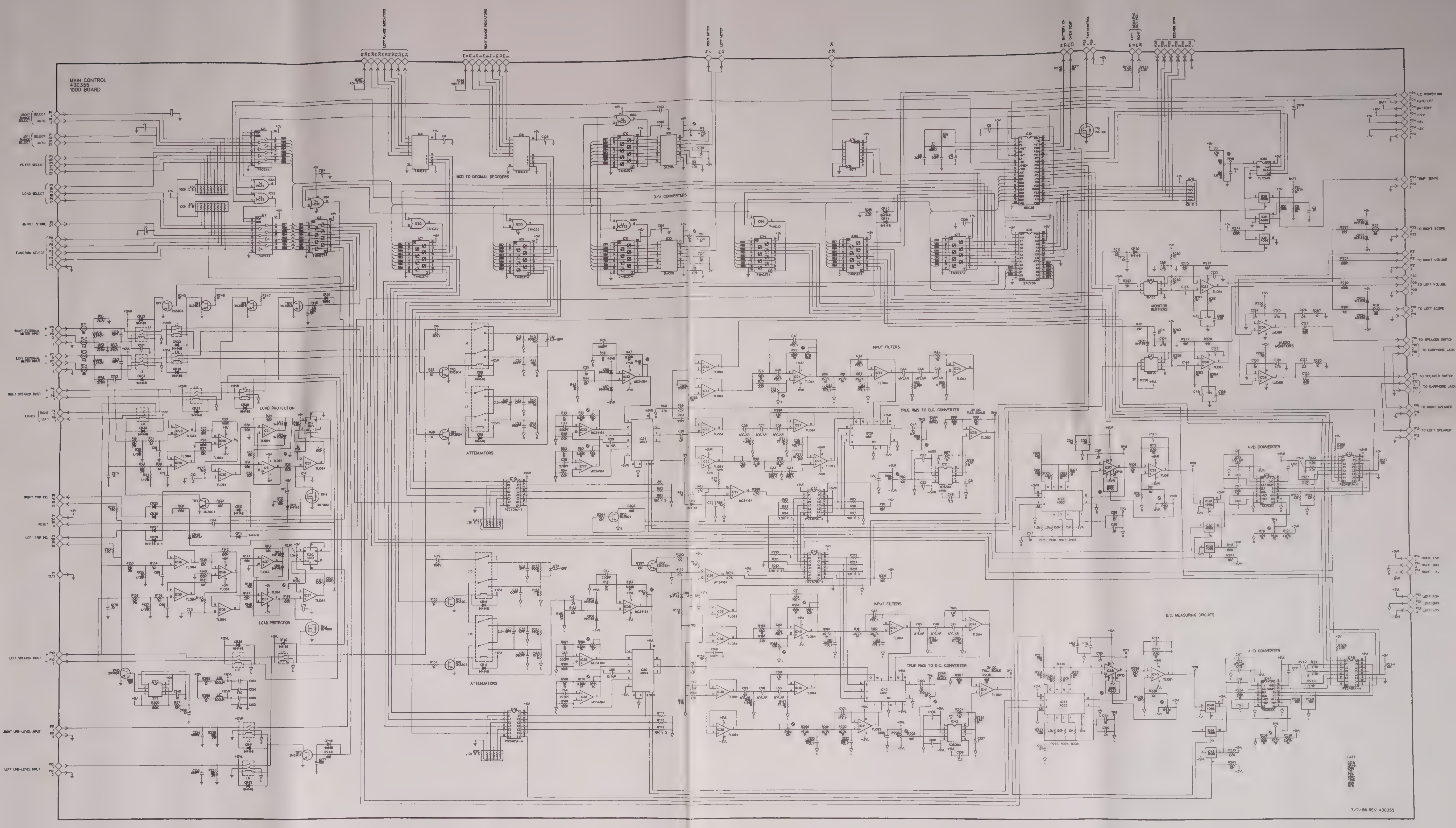
1000 Main Board Component View



1000 Main Board Component View



1000 Main Board Component View


MAIN CONTROL
43C355
1000 BOARD
RIGHT RANGE SELECT
SELECT
AUTO
LEFT RANGE SELECT
FILTER SELECT
LOAD SELECT
REF STORE
FUNCTION SELECT
RIGHT EXTERNAL METER INPUT
LEFT EXTERNAL METER INPUT
RIGHT SPEAKER INPUT
LOADS
RIGHT
LEFT
RIGHT TRIP IND.
RESET
LEFT TRIP IND.
CLR
LEFT SPEAKER INPUT
RIGHT LINE-LEVEL INPUT
LEFT LINE-LEVEL INPUT
LEFT RANGE INDICATORS
RIGHT RANGE INDICATORS
BCD TO DECIMAL DECODERS
D/A CONVERTERS
LOAD PROTECTION
ATTENUATORS
INPUT FILTERS
TRUE RMS TO D.C. CONVERTER
A/D CONVERTER
D.C. MEASURING CIRCUITS
MONITOR BUFFERS
AUDIO MONITORS
A.C. POWER IND.
AUTO OFF
BATTERY
+12V
+5V
-5V
TEMP SENSE
TO RIGHT SCOPE
TO RIGHT VOLUME
TO LEFT VOLUME
TO LEFT SCOPE
TO SPEAKER SWITCH
TO EARPHONE JACK
TO RIGHT SPEAKER
TO LEFT SPEAKER
7/7/88 REV 43C355

1000 Main Board Schematic

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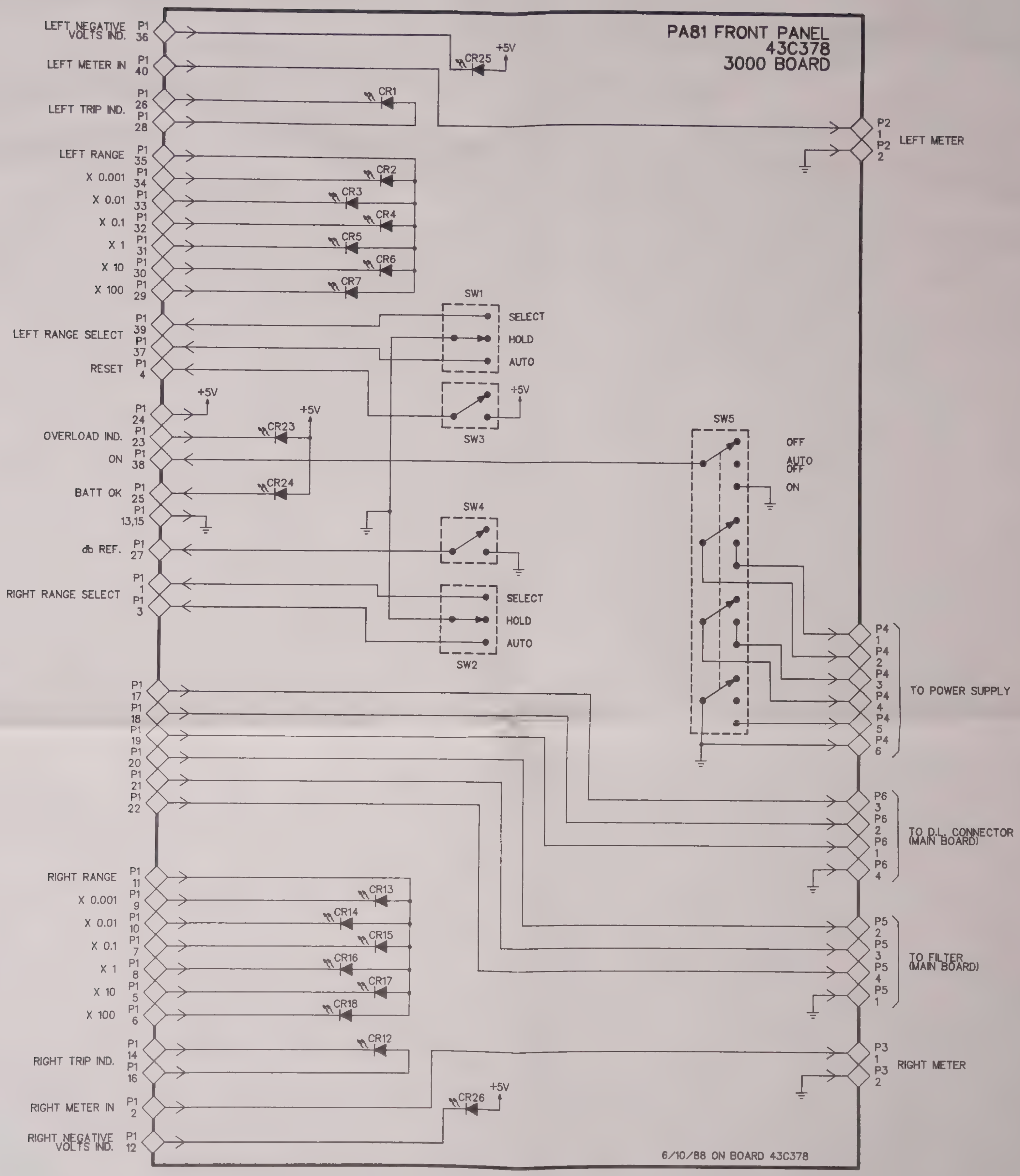
SHEET 2

This sheet includes 1000 and 2000 board schematics and 2000 board PC layouts.


PA81 FRONT PANEL
43C378
3000 BOARD
LEFT NEGATIVE VOLTS IND. P1 36
LEFT METER IN P1 40
LEFT TRIP IND. P1 26 P1 28
LEFT RANGE P1 35
X 0.001 P1 34
X 0.01 P1 33
X 0.1 P1 32
X 1 P1 31
X 10 P1 30
X 100 P1 29
LEFT RANGE SELECT P1 39 P1 37
RESET P1 4
P1 24
OVERLOAD IND. P1 23
ON P1 38
BATT OK P1 25
P1 13,15
db REF. P1 27
RIGHT RANGE SELECT P1 1 P1 3
P1 17
P1 18
P1 19
P1 20
P1 21
P1 22
RIGHT RANGE P1 11
X 0.001 P1 9
X 0.01 P1 10
X 0.1 P1 7
X 1 P1 8
X 10 P1 5
X 100 P1 6
RIGHT TRIP IND. P1 14 P1 16
RIGHT METER IN P1 2
RIGHT NEGATIVE VOLTS IND. P1 12
CR25 +5V
CR1
CR2
CR3
CR4
CR5
CR6
CR7
SW1
SELECT
HOLD
AUTO
SW3
+5V
+5V
CR23 +5V
CR24
SW4
SW2
SELECT
HOLD
AUTO
SW5
OFF
AUTO OFF
ON
CR13
CR14
CR15
CR16
CR17
CR18
CR12
CR26 +5V
P2 1 P2 2 LEFT METER
P4 1 P4 2 P4 3 P4 4 P4 5 P4 6 TO POWER SUPPLY
P6 3 P6 2 P6 1 P6 4 TO D.L. CONNECTOR (MAIN BOARD)
P5 2 P5 3 P5 4 P5 1 TO FILTER (MAIN BOARD)
P3 1 P3 2 RIGHT METER
6/10/88 ON BOARD 43C378

3000 Front Panel Board Schematic

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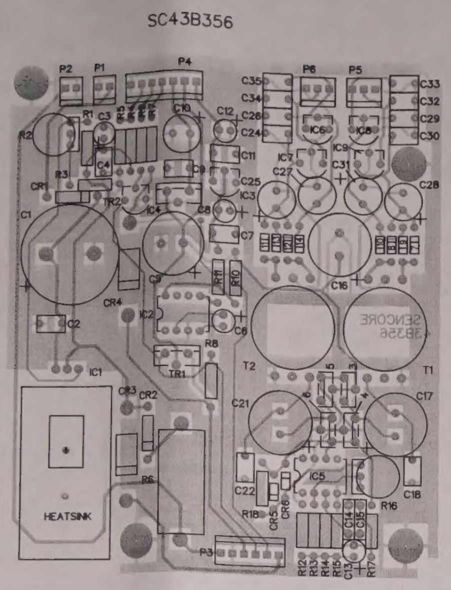
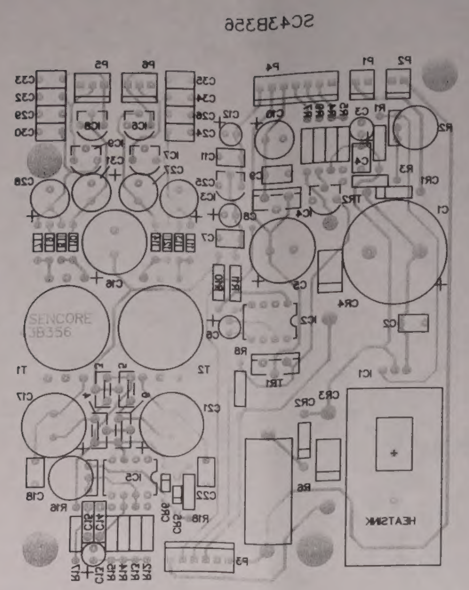
SHEET 3

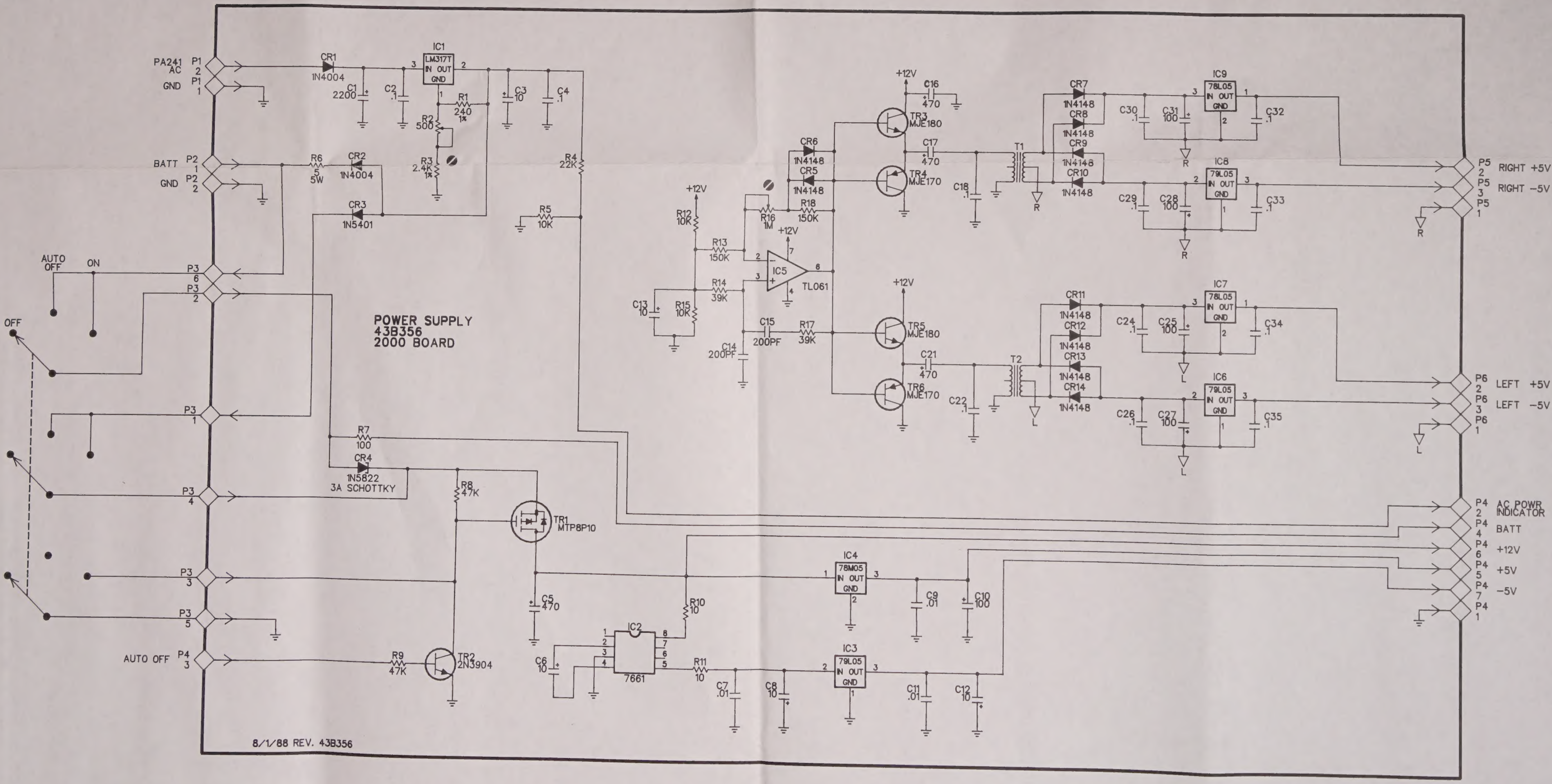
This sheet includes 1000 and 3000 board PC layouts and 3000 board schematic.


SC43B356
P2
P1
P4
P6
P5
HEATSINK
SENCORE 3B356
P3

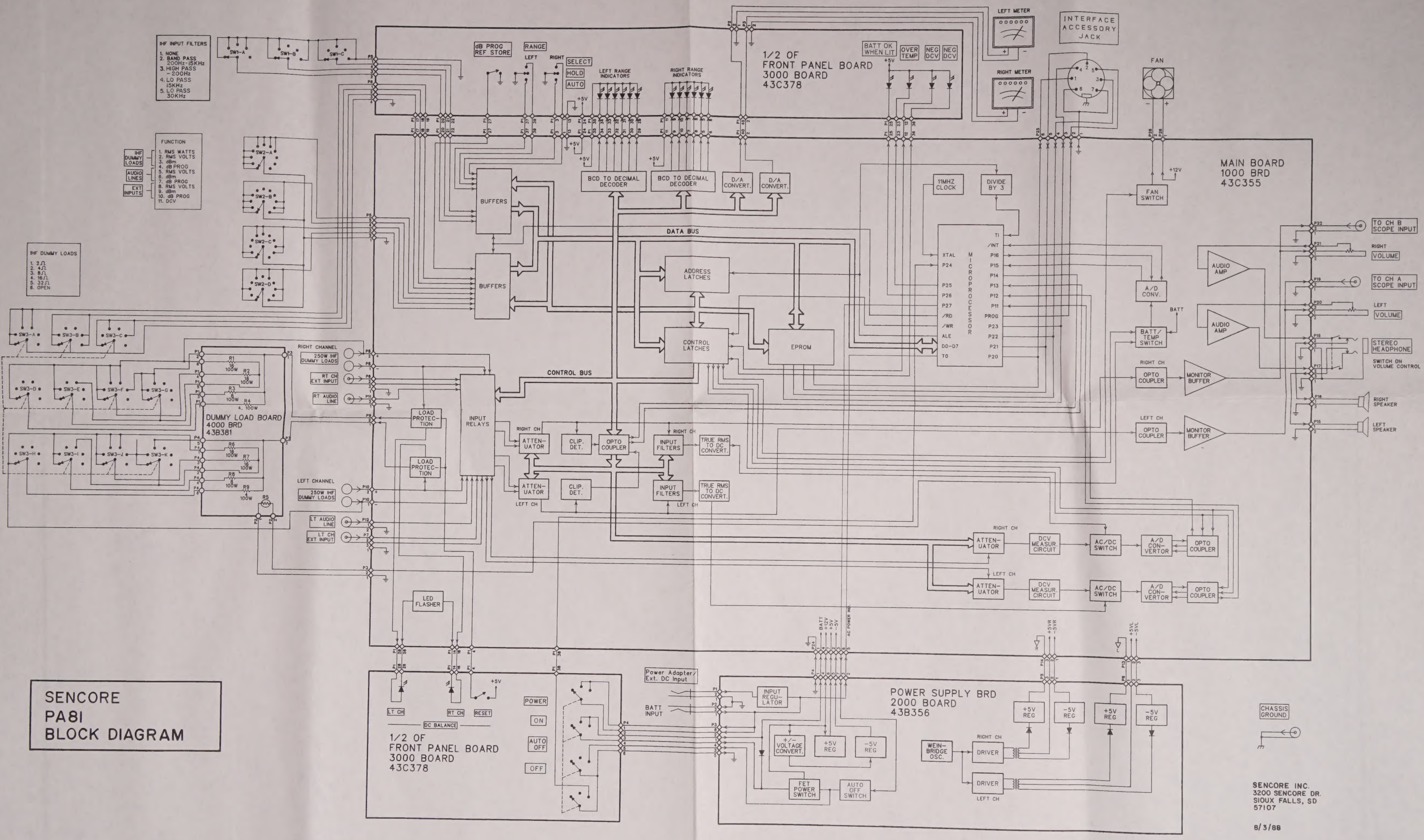
2000 Power Supply Board Component View



2000 Power Supply Board Foil View


PA241 AC
GND
P1 2
P1 1
CR1 1N4004
IC1 LM317T
IN OUT GND
C1 2200
C2 .1
R1 240 1%
R2 500
R3 2.4K 1%
C3 10
C4 .1
BATT
GND
P2 1
P2 2
R6 5 5W
CR2 1N4004
CR3 1N5401
R4 22K
R5 10K
AUTO OFF
ON
OFF
P3 6
P3 2
P3 1
P3 4
P3 3
P3 5
POWER SUPPLY
43B356
2000 BOARD
R7 100
CR4 1N5822 3A SCHOTTKY
R8 47K
TR1 MTP8P10
C5 470
AUTO OFF
P4 3
R9 47K
TR2 2N3904
IC2 7661
C6 10
R10 10
R11 10
C7 .01
C8 10
IC4 78M05
C9 .01
C10 100
IC3 79L05
C11 .01
C12 10
+12V
R12 10K
R13 150K
R14 39K
R15 10K
C13 10
R16 1M
R18 150K
CR6 1N4148
CR5 1N4148
IC5 TL061
C15 200PF
C14 200PF
R17 39K
TR3 MJE180
TR4 MJE170
TR5 MJE180
TR6 MJE170
C16 470
C17 470
C18 .1
C21 470
C22 .1
T1
T2
CR7 1N4148
CR8 1N4148
CR9 1N4148
CR10 1N4148
CR11 1N4148
CR12 1N4148
CR13 1N4148
CR14 1N4148
IC9 78L05
IC8 79L05
IC7 78L05
IC6 79L05
C30 .1
C31 100
C32 .1
C29 .1
C28 100
C33 .1
C24 .1
C25 100
C34 .1
C26 .1
C27 100
C35 .1
R
L
P5 2 RIGHT +5V
P5 3 RIGHT −5V
P5 1
P6 2 LEFT +5V
P6 3 LEFT −5V
P6 1
P4 2 AC POWR INDICATOR
P4 4 BATT
P4 6 +12V
P4 5 +5V
P4 7 −5V
P4 1
8/1/88 REV. 43B356

2000 Power Supply Board Schematic


SENCORE
PA81
BLOCK DIAGRAM
IHF INPUT FILTERS
1. NONE
2. BAND PASS 200Hz-15KHz
3. HIGH PASS -200Hz
4. LO PASS 15KHz
5. LO PASS 30KHz
SW1-A
SW1-B
SW1-C
FUNCTION
IHF DUMMY LOADS
AUDIO LINES
EXT INPUTS
1. RMS WATTS
2. RMS VOLTS
3. dBm
4. dB PROG
5. RMS VOLTS
6. dBm
7. dB PROG
8. RMS VOLTS
9. dBm
10. dB PROG
11. DCV
SW2-A
SW2-B
SW2-C
SW2-D
IHF DUMMY LOADS
1. 2Ω
2. 4Ω
3. 8Ω
4. 16Ω
5. 32Ω
6. OPEN
SW3-A
SW3-B
SW3-C
SW3-D
SW3-E
SW3-F
SW3-G
SW3-H
SW3-I
SW3-J
SW3-K
R1 16 100W
R2 16 100W
R3 8 100W
R4 4, 100W
R6 16 100W
R7 16 100W
R8 8 100W
R9 4 100W
R5
DUMMY LOAD BOARD
4000 BRD
43B381
RIGHT CHANNEL
250W IHF DUMMY LOADS
RT CH EXT INPUT
RT AUDIO LINE
LEFT CHANNEL
250W IHF DUMMY LOADS
LT AUDIO LINE
LT CH EXT INPUT
LOAD PROTEC-TION
LOAD PROTEC-TION
INPUT RELAYS
LED FLASHER
dB PROG REF STORE
RANGE
LEFT
RIGHT
SELECT
HOLD
AUTO
+5V
LEFT RANGE INDICATORS
RIGHT RANGE INDICATORS
1/2 OF
FRONT PANEL BOARD
3000 BOARD
43C378
BATT OK WHEN LIT
OVER TEMP
NEG DCV
NEG DCV
LEFT METER
RIGHT METER
INTERFACE ACCESSORY JACK
FAN
BUFFERS
BUFFERS
BCD TO DECIMAL DECODER
BCD TO DECIMAL DECODER
D/A CONVERT.
D/A CONVERT.
11MHZ CLOCK
DIVIDE BY 3
DATA BUS
ADDRESS LATCHES
CONTROL LATCHES
EPROM
CONTROL BUS
MICROPROCESSOR
XTAL
P24
P25
P26
P27
/RD
/WR
ALE
D0-D7
T0
T1
/INT
P16
P15
P14
P13
P12
P11
PROG
P23
P22
P21
P20
MAIN BOARD
1000 BRD
43C355
FAN SWITCH
+12V
A/D CONV.
BATT
BATT/TEMP SWITCH
RIGHT CH
OPTO COUPLER
MONITOR BUFFER
LEFT CH
OPTO COUPLER
MONITOR BUFFER
AUDIO AMP
AUDIO AMP
TO CH B SCOPE INPUT
RIGHT
VOLUME
TO CH A SCOPE INPUT
LEFT
VOLUME
STEREO HEADPHONE
SWITCH ON VOLUME CONTROL
RIGHT SPEAKER
LEFT SPEAKER
RIGHT CH
ATTEN-UATOR
CLIP. DET.
OPTO COUPLER
INPUT FILTERS
TRUE RMS TO DC CONVERT.
LEFT CH
ATTEN-UATOR
CLIP. DET.
INPUT FILTERS
TRUE RMS TO DC CONVERT.
RIGHT CH
ATTEN-UATOR
DCV MEASUR. CIRCUIT
AC/DC SWITCH
A/D CON-VERTOR
OPTO COUPLER
LEFT CH
ATTEN-UATOR
DCV MEASUR. CIRCUIT
AC/DC SWITCH
A/D CON-VERTOR
OPTO COUPLER
BATT
+12V
+5V
-5V
AC POWER IND.
+5VR
-5VR
R
+5VL
-5VL
L
LT CH
RT CH
RESET
DC BALANCE
1/2 OF
FRONT PANEL BOARD
3000 BOARD
43C378
POWER
ON
AUTO OFF
OFF
Power Adapter/ Ext. DC Input
BATT INPUT
INPUT REGU-LATOR
+/- VOLTAGE CONVERT.
+5V REG
-5V REG
FET POWER SWITCH
AUTO OFF SWITCH
POWER SUPPLY BRD
2000 BOARD
43B356
+5V REG
-5V REG
+5V REG
-5V REG
WEIN-BRIDGE OSC.
RIGHT CH
DRIVER
DRIVER
LEFT CH
CHASSIS GROUND
SENCORE INC.
3200 SENCORE DR.
SIOUX FALLS, SD
57107
8/3/88

PA81 Block Diagram